

### CLAIMS

1. An isolated nucleic acid sequence comprising SEQ ID NO: 1 or an isolated nucleic acid comprising a polynucleotide sequence of greater than about fifty nucleotides which hybridizes under stringent conditions to SEQ ID NO:1 and provides a plant with resistance to *Xanthomonas* when transfected into the plant.
2. A method of making a plant resistant to *Xanthomonas*, the method comprising transfecting the nucleic acid of claim 1 into said plant or transfecting said nucleic acid into a plant cell or cells and growing a plant from said cell or cells.
3. An isolated nucleic acid comprising at least one nucleic acid selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51 and SEQ ID NO:52 or an isolated nucleic acid which hybridizes under stringent conditions to said isolated nucleic acid and provides a plant with resistance to *Xanthomonas* when transfected into the plant.
4. A method of making a plant resistant to *Xanthomonas*, the method comprising transfecting the isolated nucleic acid of claim 3 into said plant or transfecting said isolated nucleic acid into a plant cell or cells and growing a plant from said cell or cells.
5. An isolated nucleic acid encoding a polypeptide of SEQ ID NO:5.
6. A method of making a plant resistant to *Xanthomonas* which comprises expressing in the plant a polypeptide comprising SEQ ID NO:5.
7. The method of claim 6 wherein the polypeptide is expressed from a nucleic acid which comprises a nucleic acid encoding the polypeptide operably linked to a plant promoter.
8. The method of claim 7, wherein the promoter is a tissue-specific promoter.

9. The method of claim 7, wherein the promoter is a constitutive promoter.
10. The method of claim 7, wherein the promoter is an inducible promoter.
11. A vector which comprises a nucleic acid as in any of claims 1, 3 or 5.
12. A vector as in claim 11 which further comprises a plant promoter operably linked to said nucleic acid.
13. The vector of claim 12, wherein the promoter is a tissue-specific promoter.
14. The vector of claim 12, wherein the promoter is a constitutive promoter.
15. The vector of claim 12, wherein the promoter is an inducible promoter.
16. A method of enhancing resistance to *Xanthomonas* in a plant, the method comprising transfecting the plant or a cell from the plant with a nucleic acid selected from the group consisting of SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51 and SEQ ID NO:52.
17. The method of claim 16 which further comprises a nucleic acid encoding a heterologous polypeptide operably linked to said nucleic acid.
18. A transgenic plant that is resistant to *Xanthomonas*, wherein the plant is obtained from any of the methods of claims 2, 4, 6 and 7-10.
19. A cell that is transformed with at least one nucleic acid selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51 and SEQ ID NO:52.
20. The transgenic plant of claim 18 which is rice.

21. The transgenic plant of claim 18, wherein the plant is selected from the group of plants consisting of barley, oats, wheat and corn.
22. An isolated nucleic acid which comprises at least 100 contiguous base pairs of SEQ ID NO:1 and confers resistance to Xanthomonas when transfected into a plant that is not resistant to said Xanthomonas.
23. A method of conferring resistance to Xanthomonas disease to a plant which comprises transfecting the plant with the nucleic acid of claim 22.